

## **The Department of Vermont Health Access Medical Policy**

**Subject: Hereditary Hemochromatosis Gene Analysis**

**Last Review:** August 11, 2016

**Revision 3:**

**Revision 2:**

**Revision 1:**

**Original Effective:** August 11, 2016

### **Description of Service or Procedure**

Hereditary hemochromatosis (HH), also called genetic hemochromatosis, is the most common, identified, genetic disorder in Caucasians. HH alters the body's ability to regulate iron absorption. The mechanism for regulating iron absorption is faulty and the body absorbs too much iron from food. Over time the HH excess iron is deposited into the cells of the liver, heart, pancreas, joints, and pituitary gland, leading to diseases such as cirrhosis of the liver, liver cancer, diabetes, heart disease or failure, and joint disease. One Human hemochromatosis protein (HFE) gene is inherited from each parent. The HFE gene has two common mutations, C282Y and H63D. Genetic testing can reveal whether these mutations are in the HFE gene. It is important to note that not everyone who inherits two genes develops problems linked to the iron overload of hemochromatosis.

### **Disclaimer**

Coverage is limited to that outlined in Medicaid Rule that pertains to the beneficiary's aid category. Prior Authorization (PA) is only valid if the beneficiary is eligible for the applicable item or service on the date of service.

### **Medicaid Rule**

[7102.2](#) Prior Authorization Determination

[7103](#) Medical Necessity

Medicaid Rules can be found at <http://humanservices.vermont.gov/on-line-rules>



## **Coverage Position**

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HH gene analysis may be covered for beneficiary's:

- When the HH gene analysis is prescribed by a licensed medical provider, enrolled in the Vermont Medicaid program, operating within their scope of practice in accordance with Vermont State Practice Act, who is knowledgeable in the use of HH gene analysis results and who provides medical care to the member AND
- When the clinical guidelines below are met.

## **Coverage Criteria**

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HH may be covered for a beneficiary with one or more of the following:

1. Who have abnormal iron study results, even in the absence of symptoms. **OR**
2. With suggestive symptoms (examples: abdominal pain, weakness, lethargy, arthralgias, impotence, weight loss), physical findings (examples: cirrhosis of the liver, liver cancer, diabetes, heart disease or failure, joint disease, osteoporosis) AND an elevated transferrin saturation or serum ferritin test. **OR**
3. A family history of HH in a first degree relative. **OR**
4. Recommend screening (iron studies and HFE mutation analysis) of first-degree relatives of beneficiary's with HFE-related HH or evidence of active liver disease to detect early disease and prevent complications.

Definition: A first degree blood relative shares 50 % DNA (father, mother, brother, sister, daughter, or son)

Both genotype (HFE mutation analysis) phenotype (ferritin and Transferrin saturation (TS) should be performed simultaneously at a single visit

## **Clinical guidelines for repeat service or procedure**

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Subsequent HH genetic testing is not necessary and will not be covered.

## **Type of service or procedure not covered (this list may not be all inclusive)**

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Average risk population screening for HH is not recommended.

## References

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American Hemochromatosis Society. Guidelines. Retrieved on May 9, 2016 from:

<http://www.americanhs.org/guidelines.htm>

Bacon, B., Adams, P., Kowdley, K., Powell, L., & Tavill, A. (2011). Diagnosis and management of hemochromatosis: 2011 practice guideline by the American Association for the Study of Liver Diseases. *Hepatology*, 54(1). Retrieved on May 3, 2016 from:

[http://www.aasld.org/sites/default/files/guideline\\_documents/Hemochromatosis2011.pdf](http://www.aasld.org/sites/default/files/guideline_documents/Hemochromatosis2011.pdf)

Crownover, B., & Covey, C. (2013). Hereditary hemochromatosis. *American Family Physician*, 87, 3. Retrieved on May 9, 2016 from:

<http://www.aafp.org/afp/2013/0201/p183.pdf>

Mayo Clinic. (2016). Hemochromatosis. Retrieved on May 3, 2016 from:

<http://www.mayoclinic.org/diseases-conditions/hemochromatosis/symptoms-causes/dHereditary-hemochromatosis-c-20167290>

National Institute of Diabetes and Digestive and Kidney Diseases. (2014). Hemochromatosis. Retrieved on May 3, 2016 from:

<http://www.niddk.nih.gov/health-information/health-topics/liver-disease/hemochromatosis/Pages/facts.aspHereditary-hemochromatosis>

National Human Genome Research Institute. (2012). Learning about hereditary Hemochromatosis. Retrieved on May 5, 2016 from:

<https://www.genome.gov/10001214/learning-about-hereditary-hemochromatosis/>

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